

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: LUMARK

Report Number: P966254

Luminaire Tested: **NAV-SB4B-760-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966254
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-760-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24425.8 lumens
Efficiency: N/A
Efficacy: 166.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

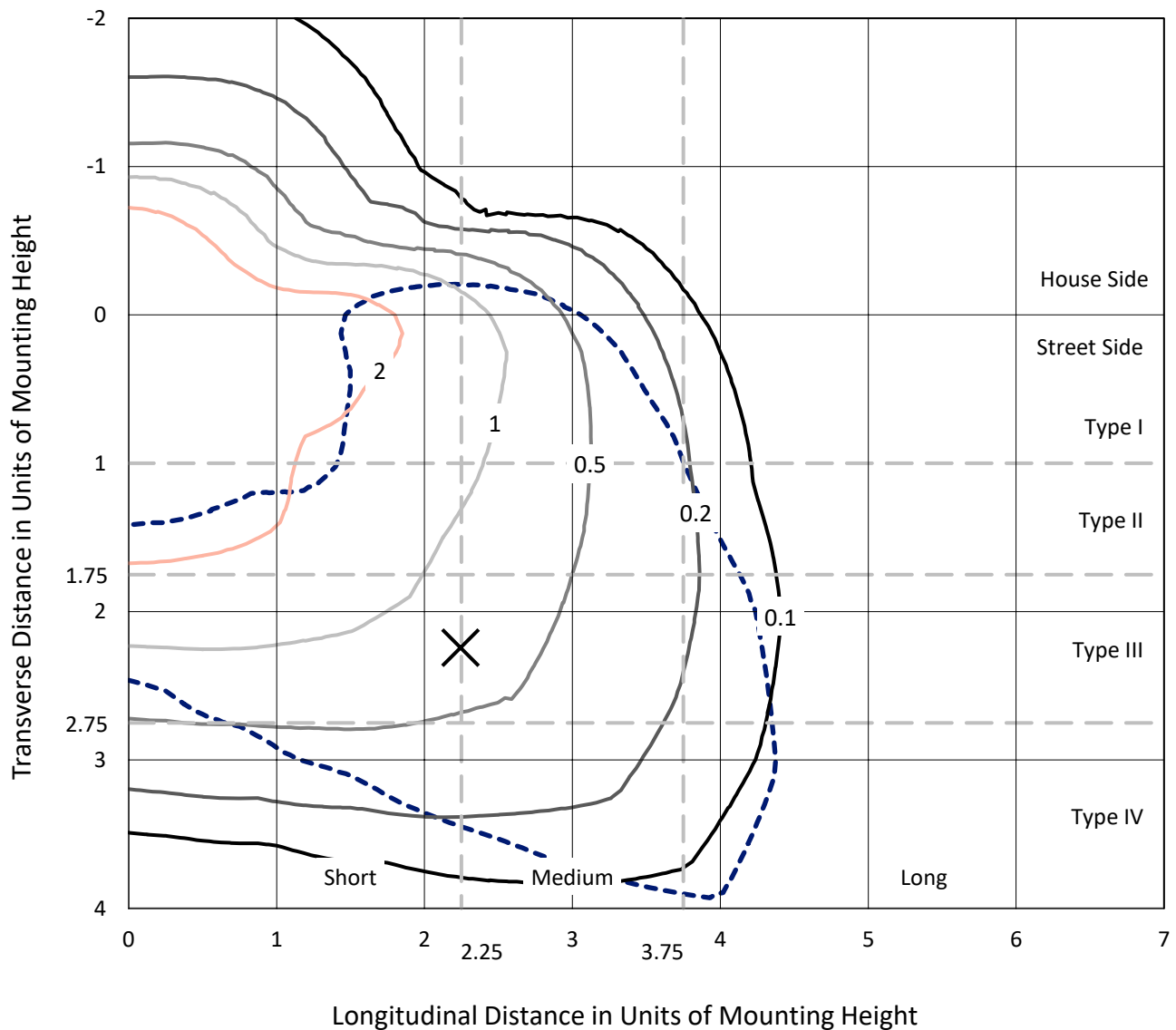


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Iso-Footcandle Lines of Horizontal Illumination

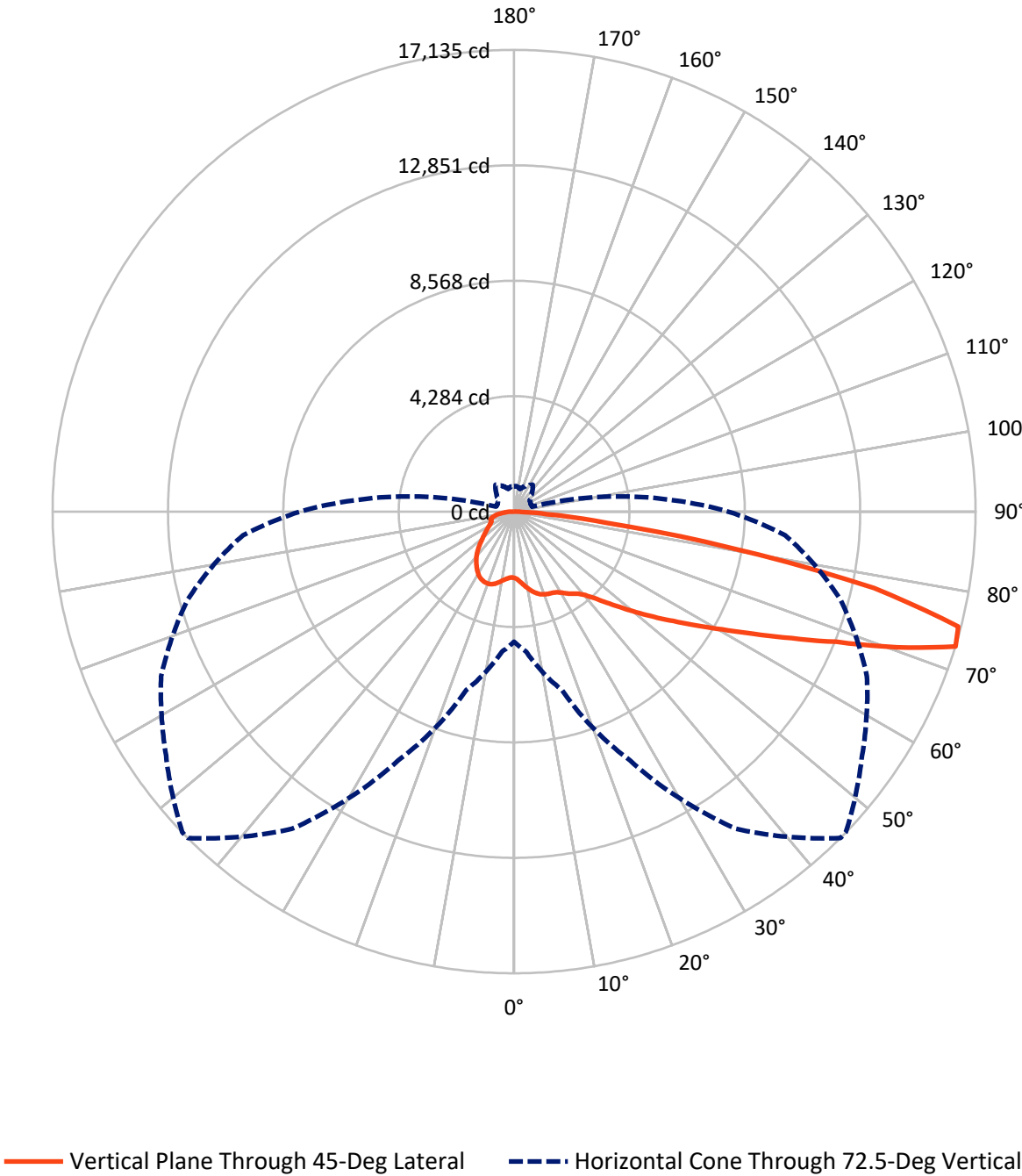
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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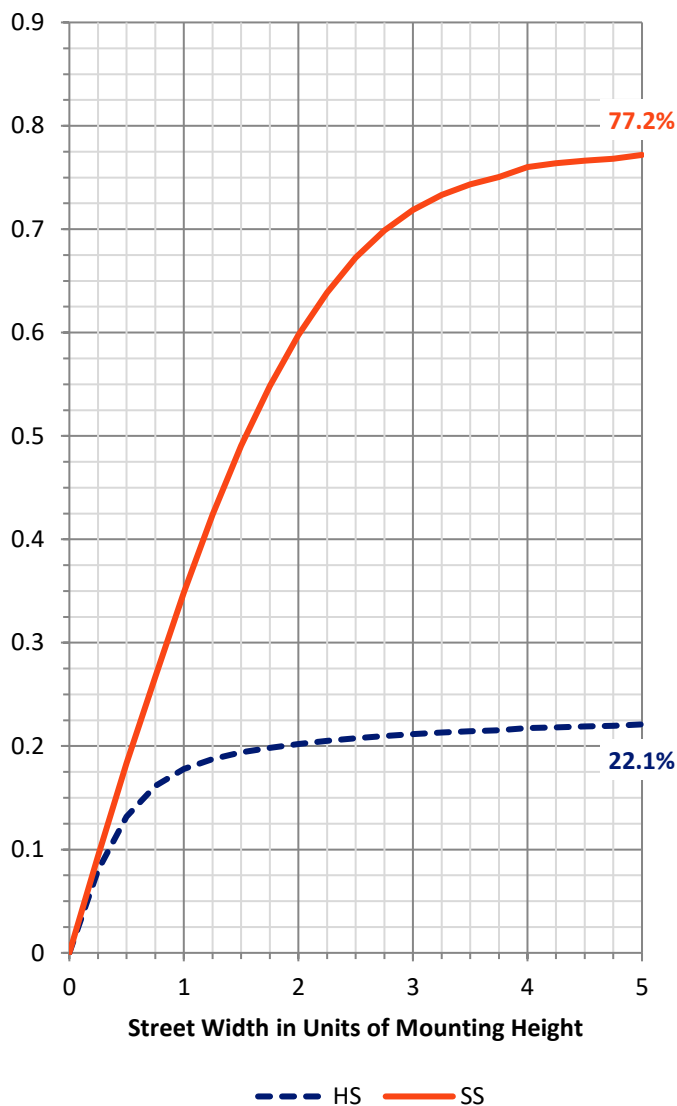
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5521.8	0.0	5521.8
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	18903.9	0.0	18903.9
	% Fixture	77.4	0.0	77.4
Total	Lumens	24425.8	0.0	24425.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.8	1.0
10°-20°	836.2	3.4
20°-30°	1454.6	6.0
30°-40°	2085.2	8.5
40°-50°	2936.1	12.0
50°-60°	4497.3	18.4
60°-70°	6515.0	26.7
70°-80°	5202.6	21.3
80°-90°	648.0	2.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	24425.8	100.0
0°-180°	24425.8	100.0

Coefficient of Utilization



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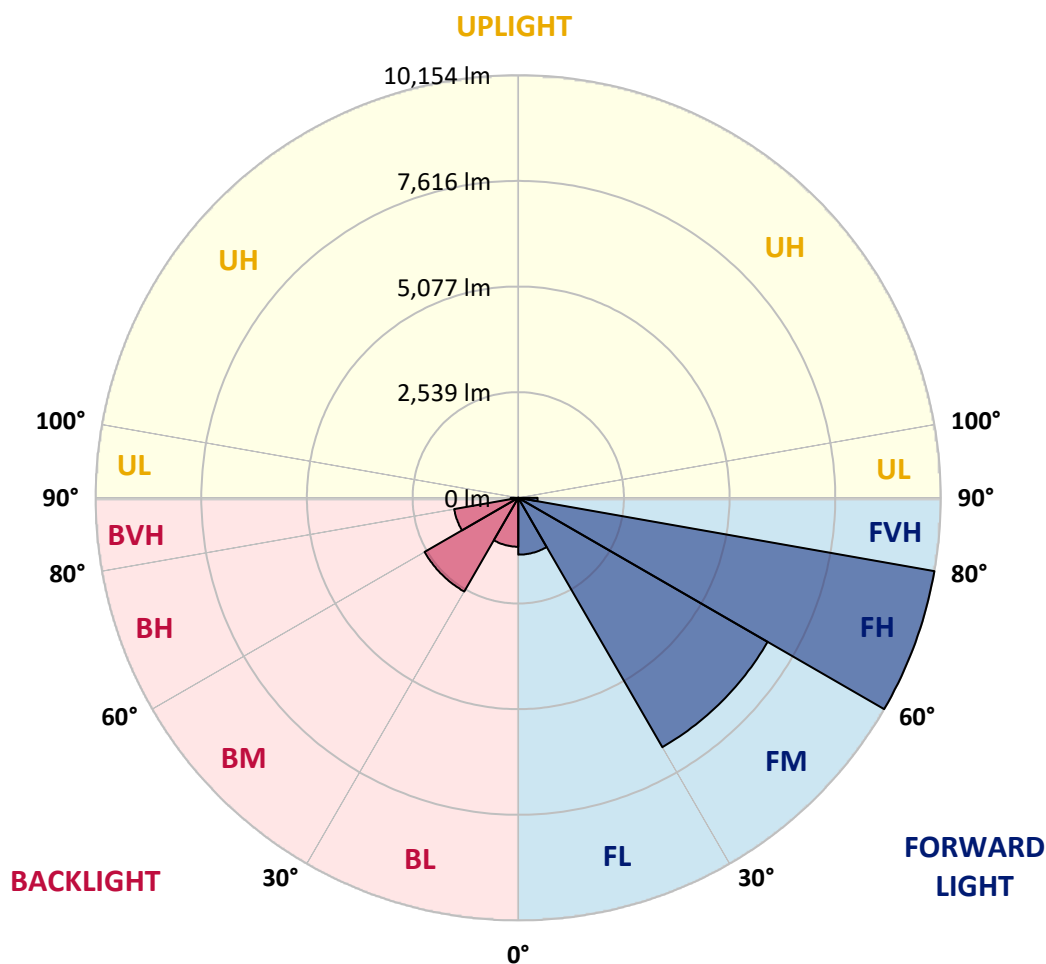
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1365.9	5.6			
FM	(30°-60°)	6918.6	28.3			
FH	(60°-80°)	10154.5	41.6			G4/12000
FVH	(80°-90°)	464.9	1.9			G3/500
BL	(0°-30°)	1175.6	4.8	B3/2500		
BM	(30°-60°)	2600.0	10.6	B3/5000		
BH	(60°-80°)	1563.1	6.4	B3/2500		G3/2500
BVH	(80°-90°)	183.1	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1
2.5°	2560.6	2577.4	2561.9	2547.7	2541.3	2524.6	2523.2	2513.0	2506.5	2488.5	2483.4
5°	2739.4	2761.4	2735.6	2707.2	2681.5	2640.4	2635.2	2605.7	2572.1	2533.6	2511.7
7.5°	2941.4	2960.7	2931.2	2888.7	2843.7	2775.5	2774.2	2720.1	2667.4	2601.8	2564.4
10°	3117.7	3143.5	3103.6	3045.7	2989.1	2911.8	2902.9	2841.1	2774.2	2689.3	2632.6
12.5°	3273.4	3291.5	3252.8	3182.1	3116.4	3039.2	3027.6	2959.5	2884.9	2788.3	2716.2
15°	3397.0	3420.1	3368.7	3292.7	3223.2	3147.4	3137.0	3075.3	3000.7	2899.0	2806.3
17.5°	3478.0	3497.3	3444.6	3359.6	3292.7	3229.7	3222.0	3170.5	3104.8	3001.9	2902.9
20°	3508.9	3529.5	3474.1	3387.9	3326.2	3277.3	3273.4	3236.1	3191.1	3097.1	2996.8
22.5°	3539.8	3559.1	3487.0	3397.0	3342.9	3312.1	3310.7	3286.3	3268.3	3191.1	3093.2
25°	3664.6	3669.7	3573.3	3443.3	3366.1	3339.0	3337.8	3336.5	3344.2	3283.7	3197.5
27.5°	3772.7	3771.4	3689.1	3566.8	3447.2	3390.5	3389.3	3402.1	3426.6	3376.4	3305.6
30°	3931.0	3916.8	3819.0	3691.6	3582.3	3494.7	3487.0	3475.5	3494.7	3454.9	3413.7
32.5°	4266.8	4221.8	4063.5	3837.0	3694.2	3627.3	3617.0	3545.0	3552.6	3528.3	3507.7
35°	4748.0	4688.9	4477.8	4112.4	3833.2	3738.0	3732.8	3641.4	3626.0	3604.1	3611.8
37.5°	5320.6	5247.3	5001.5	4511.2	4072.5	3866.6	3858.9	3776.5	3713.5	3690.3	3734.1
40°	5895.8	5803.1	5599.9	4997.7	4425.0	4081.6	4057.1	3932.2	3860.2	3821.6	3914.3
42.5°	6454.2	6377.0	6203.3	5543.2	4859.9	4395.5	4341.4	4127.8	4073.8	4037.8	4205.1
45°	6948.4	6878.9	6751.5	6126.1	5369.5	4822.6	4769.9	4421.2	4404.4	4404.4	4646.3
47.5°	7349.8	7334.4	7199.2	6720.6	5970.4	5309.0	5217.7	4829.1	4874.1	4943.6	5273.0
50°	7795.0	7752.5	7608.4	7306.0	6676.8	5866.2	5791.6	5329.6	5498.2	5688.6	6178.9
52.5°	8204.2	8227.4	8066.4	7916.0	7474.6	6487.6	6356.4	5920.2	6284.4	6599.7	7240.4
55°	8625.0	8626.2	8581.2	8560.6	8311.0	7174.8	7030.7	6630.5	7209.5	7600.7	8478.3
57.5°	9020.0	9022.6	9089.4	9270.9	9281.2	7967.4	7804.0	7502.9	8237.6	8636.5	9754.7
60°	9372.5	9390.5	9573.3	9997.8	10134.3	8875.9	8721.4	8533.5	9300.4	9701.9	11096.8
62.5°	9490.9	9556.5	9963.1	10566.6	10977.0	9990.2	9838.4	9726.3	10417.4	10790.5	12218.7
65°	9290.2	9440.8	10226.9	11036.3	11844.3	11314.2	11163.7	11041.4	11578.0	11929.3	13140.1
67.5°	8797.4	8991.6	10211.5	11529.1	12896.9	12907.2	12766.9	12480.0	12822.2	12957.3	13439.9
70°	7499.0	7789.9	9312.0	11713.1	14105.1	15085.5	14950.4	14211.9	14063.9	13410.3	12595.8
72.5°	4831.6	5222.8	6856.9	10198.6	14374.0	17135.3	17127.6	15775.3	14456.4	12530.1	10102.1
75°	1762.8	2002.1	3185.9	6401.4	12065.7	17031.1	17081.3	15507.6	13196.7	9678.8	6293.4
77.5°	642.1	702.5	1039.7	2460.2	7420.6	13665.1	13769.2	12397.6	9393.1	4857.4	2493.7
80°	337.1	370.5	532.7	954.8	3179.5	8115.4	8278.8	7367.8	4414.8	1463.0	747.6
82.5°	186.5	202.0	298.5	518.5	1432.1	3470.3	3568.1	2910.6	1553.1	620.2	308.8
85°	100.3	106.8	140.2	283.1	700.0	1203.0	1230.1	869.8	618.9	364.2	149.2
87.5°	29.6	36.0	46.3	90.1	274.1	270.2	276.6	172.4	244.5	184.0	48.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1
2.5°	2475.7	2471.8	2457.6	2451.2	2443.5	2442.2	2448.6	2450.0	2451.2	2452.5	2457.6
5°	2498.8	2485.9	2473.1	2465.3	2467.9	2469.2	2482.1	2491.1	2497.5	2502.6	2505.3
7.5°	2543.8	2533.6	2511.7	2510.4	2514.2	2525.8	2542.6	2563.1	2574.7	2583.7	2586.3
10°	2610.8	2591.5	2565.8	2569.6	2577.4	2594.1	2628.8	2645.5	2664.8	2681.5	2677.7
12.5°	2678.9	2662.2	2632.6	2635.2	2648.1	2677.7	2711.1	2731.7	2744.5	2757.5	2762.6
15°	2767.7	2738.2	2706.0	2706.0	2729.2	2761.4	2776.7	2793.5	2801.2	2815.4	2820.5
17.5°	2859.1	2820.5	2778.1	2775.5	2803.8	2819.3	2828.2	2830.8	2833.4	2848.8	2854.0
20°	2950.5	2908.0	2847.6	2842.4	2848.8	2846.2	2845.0	2842.4	2846.2	2865.6	2873.3
22.5°	3040.6	2991.7	2908.0	2884.9	2866.8	2842.4	2841.1	2839.8	2842.4	2861.7	2874.5
25°	3146.0	3086.9	2975.0	2905.5	2845.0	2811.5	2815.4	2816.6	2819.3	2834.6	2855.2
27.5°	3260.5	3194.9	3036.7	2899.0	2789.6	2766.5	2760.0	2763.9	2772.9	2797.3	2821.8
30°	3375.1	3297.8	3093.2	2873.3	2720.1	2688.0	2667.4	2676.4	2704.7	2729.2	2756.1
32.5°	3479.3	3402.1	3138.3	2816.6	2631.4	2581.2	2554.2	2565.8	2594.1	2603.1	2635.2
35°	3601.5	3514.0	3157.6	2726.6	2534.8	2457.6	2421.7	2404.9	2419.0	2410.1	2438.4
37.5°	3738.0	3646.5	3155.1	2608.2	2421.7	2332.8	2282.7	2219.6	2190.0	2159.2	2178.4
40°	3940.0	3808.7	3124.2	2465.3	2281.3	2200.3	2110.3	2003.5	1936.5	1876.1	1880.0
42.5°	4215.3	4033.9	3067.5	2308.4	2123.1	2047.2	1925.0	1800.1	1694.6	1594.3	1585.3
45°	4625.8	4328.6	2996.8	2141.1	1952.0	1877.3	1744.8	1604.5	1484.9	1356.2	1340.8
47.5°	5217.7	4724.8	2929.9	1950.7	1771.8	1703.7	1583.9	1454.0	1312.5	1187.7	1173.5
50°	6030.9	5293.6	2868.2	1765.4	1594.3	1542.8	1447.6	1315.1	1172.2	1071.8	1065.4
52.5°	7065.4	6066.9	2842.4	1586.5	1428.2	1409.0	1333.0	1209.5	1074.4	989.5	983.1
55°	8253.1	6992.0	2842.4	1415.4	1282.9	1289.3	1236.6	1122.1	1004.9	929.1	921.3
57.5°	9465.2	7928.8	2790.9	1257.2	1159.4	1186.3	1152.9	1052.6	947.0	868.6	855.7
60°	10582.0	8713.7	2582.5	1113.0	1050.0	1092.4	1070.5	984.3	855.7	790.1	779.7
62.5°	11440.3	9156.3	2181.0	998.5	959.9	1008.8	997.2	894.3	839.0	811.9	802.9
65°	11870.0	9084.3	1667.6	896.9	884.0	959.9	935.4	931.6	887.9	857.0	846.6
67.5°	11606.3	8464.1	1209.5	822.3	840.2	914.8	1008.8	1024.3	943.2	882.7	872.4
70°	10449.5	7342.1	900.7	751.4	784.9	916.1	1150.4	1071.8	925.2	854.3	842.9
72.5°	7949.4	5475.0	698.7	676.8	712.9	922.6	1213.4	1050.0	873.7	944.4	936.7
75°	4546.0	3005.8	561.0	585.5	622.8	862.1	1181.2	993.3	833.8	867.3	867.3
77.5°	1733.2	1155.5	463.2	495.4	500.5	752.8	1129.8	989.5	793.9	774.6	706.4
80°	600.9	451.6	383.5	393.7	387.3	669.1	1083.4	860.8	649.7	581.6	562.3
82.5°	245.8	225.2	303.7	290.8	275.3	519.9	874.9	703.9	531.5	469.7	464.5
85°	106.8	142.8	200.7	176.3	159.6	360.3	701.3	595.7	449.1	387.3	386.0
87.5°	21.8	54.0	85.0	79.7	82.3	240.6	497.9	423.3	317.9	238.0	186.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)